STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

## **CONTRACT CHANGE ORDER MEMORANDUM**

TO: Pete Siege	nthaler, F	Prin TE /			FILE:	E.A.	04 - 0120F4	5		
, a						CO-RTE-PM SF-80-13.2/13.9				
FROM: Kannu Balan, Senior TE						FED. NO.				
CCO#: <b>154</b>	SUPPL	EMENT#: 0	Categor	y Code: CHPT	CONTINGENCY BALANCE (incl. this change) \$172,932,044.81					
COST: \$0.00 INCREASE  DECREASE						HEADQUARTERS APPROVAL REQUIRED? ☐ YES ✓ NO				
SUPPLEMENTAL FUNDS PROVIDED: \$0.00						IS THIS REQUEST IN ACCORDANCE WITH   ✓ YES   NO ENVIRONMENTAL DOCUMENTS?				
CCO DESCRIPTION:						PROJECT DESCRIPTION:				
Concrete Deficiencies						CONSTRUCT SELF-ANCHORED SUSPENSION BRIDGE				
Original Contract Time: T		Time Adj. This Ch	ne Adj. This Change: Previously Approved C Time Adjustments:		co		tage Time Adjusted: ng this change)		conciled Deferred Time ding this change)	
2490	Dav(s)	0	Day(s)	<b>501</b> Da	1 Day(s) 20 %		20 %		3	

DATE: 12/6/2010

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## THIS CHANGE ORDER PROVIDES FOR:

Resolution of a specification issue related to mass concrete, which on one occasion did not meet the temperature requirements in the Contract. The mass concrete exceeded the requirements of Special Provisions Section 10-1.45, "CONCRETE STRUCTURES," subsection "MASS CONCRETE," subsection "Thermal Control Plan" for the W2 Cap Beam's pour 3 median deck and the top 3 ft of the diaphragm and East/West walls. The maximum temperature at the center of the concrete mass peaked at 75°C, which exceeded the allowable maximum temperature of 65°C, due to a faulty cooling loop. Per the Special Provisions, the Contractor shall pay \$100 per m3 for the 561.76 m3 deficient concrete, revise the Thermal Control Plan, and provide proof of soundness of the suspect concrete placed. The Contractor transmitted letter #694 dated September 30, 2008, and a technical report by CTL dated August 29, 2008. The technical report provides analyses of the concrete temperatures in the mass concrete, the PCC chemistry, and the potential detrimental effects the high temperature may have had on the concrete qualities required under the contract. The report prepared under PE license (Civil #67953) concluded that the elevated temperature will not effect the long term durability of the concrete. The Department's due diligence, including review of the facts and recommendations by METS, was culminated in Department letter #2921 dated November 5, 2008, accepting the Contractor's recommendations.

The Contractor did not meet the requirements of Special Provisions Section 90-9 "COMPRESSIVE STRENGTH," subsection "GENERAL," for the Cable Tie-Down Cover Slabs. As the result of a single compressive strength test at the maximum age specified or allowed is below 95% of the specified strength the Contractor shall pay \$20 per m3 for the 4.8 m3 deficient concrete. Per the test results, the concrete achieved a compressive strength of 6,720 psi compared to the 8,700 psi required per contract. The Design JV has evaluated the covers for the tested concrete strength and approves the covers as fit-for-purpose.

Since the cost for these change order items has been included in Contract Change Order (CCO) No. 160 resolution costs, the net payment in this change order is zero.

A determination of the delay in completion of the contract due to work specified by Contract Change Order 154 has been made in CCO 160; therefore, no adjustment of time is warranted by reason of this change order.

This change order resolves Request For Information (RFI) No. 1959 with respect to the changes listed above.

This change order has concurrence from Peter Siegenthaler (Principal TE), Marwan Nader (Design JV), and Ken Beede (METS). Maintenance concurrence is not required for this change.

EA: 0120F4 CCO: 154 - 0

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CONCURRED BY:			ESTIMATE OF COST					
Construction Engineer:		Date			THIS REQUEST	TOTAL TO DATE		
Bridge Engineer:		Date		ITEMS	\$0.00	\$0.00		
		-		FORCE ACCOUNT	\$0.00	\$0.00		
Project Engineer:	HQ Materials, Ken Beede	Date	11/5/10	AGREED PRICE	\$0.00	\$0.00		
Project Manager:		Date		ADJUSTMENT	\$0.00	\$0.00		
FHWA Rep.:		Date		TOTAL	\$0.00	\$0.00		
Environmental:				FEDERAL PARTICIPATION				
Other (specify):	PCE, Pete Siegenthaler, Prin TE	Date Date	10/7/10	PARTICIPATING	PARTICIPATING II	N PART NONE		
Other (openity).			10/1/10	NON-PARTICIPATIN	G (MAINTENANCE)	NON-PARTICIPATING		
Other (specify): Design of Record, Marwan Nade		, Date 11/13/09		FEDERAL SEGREGATION (if more than one Funding Source or P.I.P. type)				
District Prior Approval By:				CCO FUNDED PER C		CCO FUNDED AS FOLLOWS		
HQ (Issue Approve) By:		Date		FEDERAL FUNDING SOURCE PERCENT				
Resident Engineer's Signature:		Date			1			
Hamy Beleen			10					